Editorial

After thirteen years and four phases, the AFSSRN under International Development Research Centre (IDRC) of Canada support will end on 31 March 1996. We owe a debt of gratitude to IDRC who provided major funding and support to the AFSSRN during its lifetime. Ford Foundation and ICLARM also provided operational support for the AFSSRN. Starting with three member institutions during the initial phase (1983-1985): Universiti Pertanian Malaysia, Kasetsart University and the University of the Philippines in the Visayas, the Network has grown to include 16 member institutions with over 100 members in five countries in Southeast Asia - Indonesia, Malaysia, Philippines, Thailand and Vietnam. We should remember the founders of the Network, the late Ian Smith and Brian Lockwood of ICLARM and Chris MacCormac of IDRC. We should also remember the past AFSSRN coordinators, Harlan Lampe, Max Agüero and Lou Fallon-Scura. John Graham of IDRC has been especially supportive of the Network during the last five years.

The AFSSRN has achieved its objectives. We now have a well-trained and knowledgeable group of social science researchers who can and have conducted high quality research on fisheries, aquaculture and coastal resource management. Many of our members represent their institutions and countries at international meetings and conferences in fisheries. We have a number of academic programs in fisheries social science around the region.

Where do we go from here? The Network will continue to train and bring scientists, researchers and government personnel together as it has done in the past, but at a reduced level. We also have plans to expand activities into the Mekong Subregion - Vietnam, Laos and Cambodia. In addition, cyberspace will allow for increased communications using e-mail and the Internet.

The future is still bright for the AFSSRN. ***R.S. Pomeroy***

The Effects of Aquaculture on Farm Household Economy: A Case Study in Omon District, Cantho Province, Vietnam

Le Xuan Sinh

Abstract

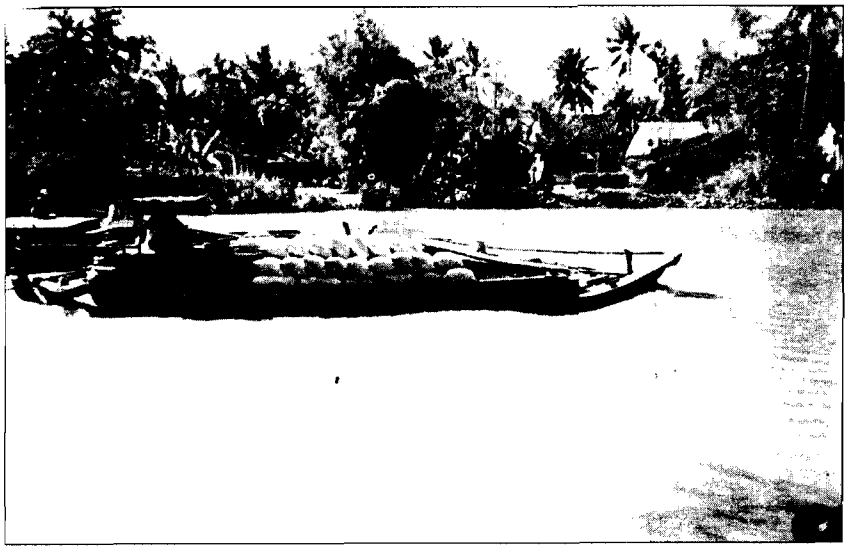
A study of the farming systems in the Mekong River Delta indicate that fish culture brings to the household a higher level of net farm income and family labor use. In general, adoption of fish culture is strongly affected by: (1) decline of wildfish, (2) location of the farm, (3) farm size per person and available water bodies within the farm, (4) income of farm, excluding income from fish, (5) guidance from agricultural extension workers, and (6) policies of local government on the development of agriculture including aquaculture.

Introduction

The Mekong River Delta is an important region in Vietnam. It covers 3 900 000 ha, equivalent to 12% of the total area of the whole country. About 80% of the population of the Delta are living in rural areas and livelihood is largely dependent on agriculture or agriculture-related occupations.

A large portion of fish production in the Mekong River Delta is from wildfish (259 000 tons in 1990). However, because of high population growth, and overfishing, wildfish, especially in fresh water areas, has declined continuously. This situation has led to an accelerated lack of fish to satisfy export demand as well as the domestic needs for animal protein of the Mekong Delta populace. For these reasons, fish farming has been recently introduced to satisfy food demand and to increase the farm income of the farm households in the region. It is important to note however, that secondary data obtained show that only 6% of water bodies suitable for aquaculture are actually being used despite a large surplus of family labor. Fish culture should thus be encouraged and improved to increase the productivity of the farm using available water bodies and family labor.

The main objective of this study was to describe the major farming practices existing in the study area, including both fish and nonfish practices in order to assess the role of aquaculture in the farm household. The researcher also aimed to identify the various factors affecting the



Common method of transporting farm products to the study area.

adoption of aquaculture, as well as the constraints and potentials of promoting fresh water aquaculture.

The study was conducted in Omon district, Cantho province, covering the agricultural year 1993-1994. Cantho lies at the right bank of the Hau River (one of two branches of the Mekong River). It is regarded as a good representation of the inland ecological and socioeconomic environment of the Mekong River Delta.

Data

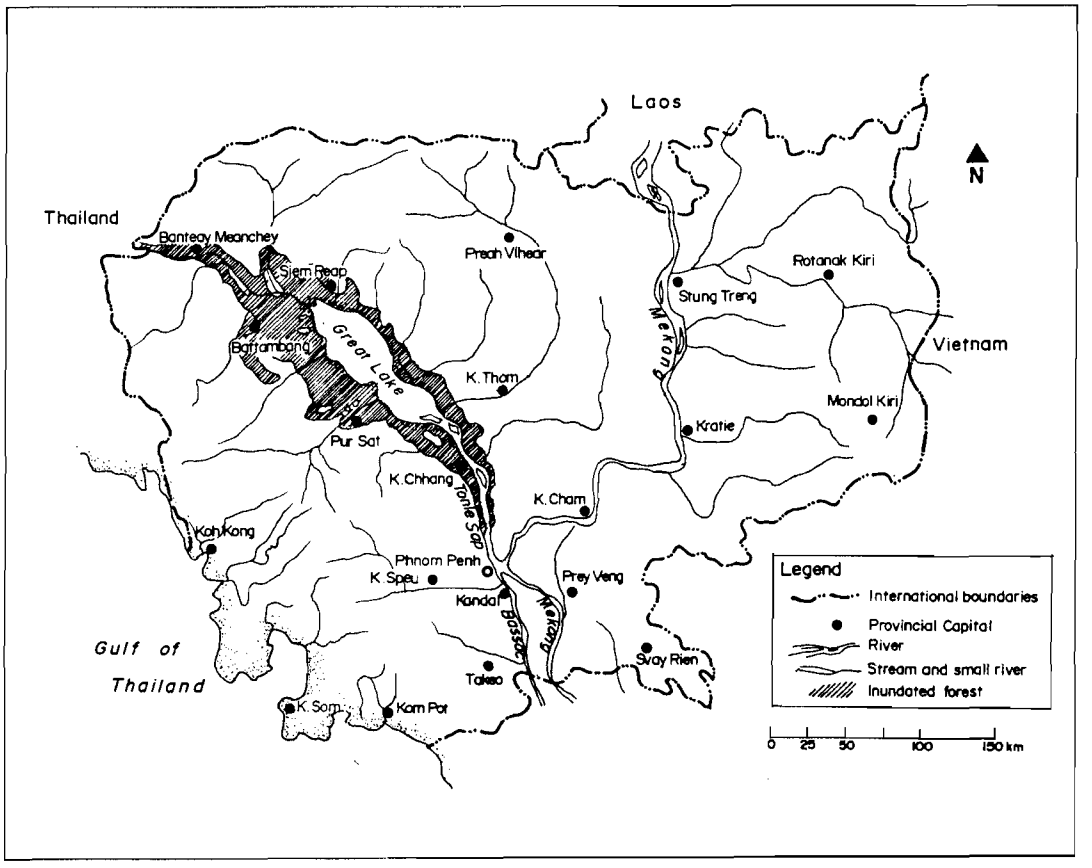
Data for this study were sourced primarily from a survey of farm households in Omon district. A total of 150 farm households were interviewed. Of this, 30 samples were discarded due to nonresponse or inaccurate response, hence only 120 were used in the final processing and analysis of data.

In addition, technicians, officials and consumers in the selected areas were also interviewed.

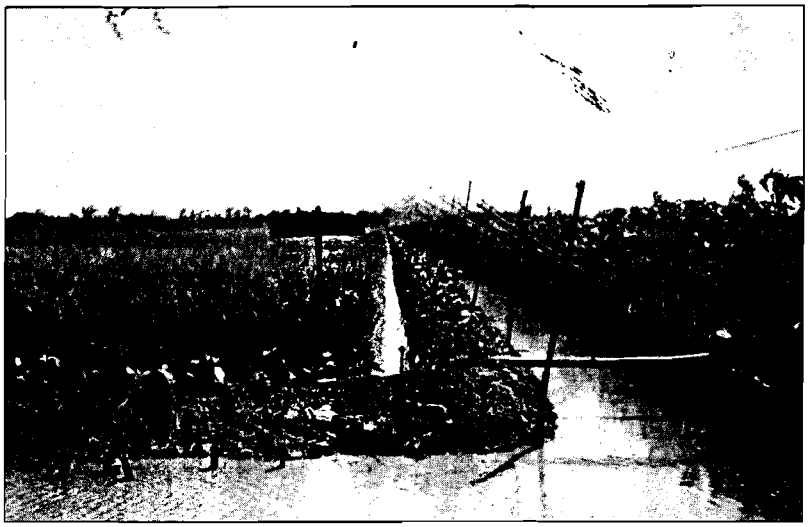
Major Findings

The results of the study indicate that physical conditions in the study area are suitable for fish culture, and that fish culture brings to the farm household a lot of advantages, the most important advantages of which are: increased farm income and creation of job opportunities for farm household members. However, the use of available water bodies for fish culture is still at a low level. The farmers' adoption of fish culture is hindered due to: (1) underdeveloped potential water bodies, (2) lack of security, (3) lack of capital, (4) lack of knowledge about fish culture, (5) lack of market and marketing facilities, and (6) lack of seed. If these factors can be overcome, fish culture can bring to the farm household higher level of family labor use and net farm income. Similarly, because of low educational level of the farmers and inadequate activities of agricultural extension workers (AEWs) on fish culture, advantages of integrated farming systems (IFSs) have not been effectively realized.

On the other hand, farmers who have already adopted fish culture in the study area also face some problems. Among these are: (1) underdeveloped potential water bodies, (2) low productivity and low income from fish, (3) over-fishing and thieves, and (4) lack of seed for fish culture. These problems are mainly caused by: a general lack of knowledge on farm management and cooperation on fish culture; inadequate activities of AEWs; and lack of support from government, e.g. lack of appropriate incentives to farmers engaged in fish culture.



The Mekong River Delta.



Rice-fish system with narrow dikes and small canals.

In general, adoption of fish culture is strongly affected by the following factors: (1) decline of wildfish; (2) location of the farm, i.e., distance to the main river, main road and the nearest place of seed supply; (3) farm size per person and available water bodies of the farm; (4) income of farm excluding income from fish; (5) guidance of agricultural extension workers (AEWs); and (6) policies of local government on the development of agriculture including aquaculture.

In order to promote fish culture in the study area, fish culture adopters need to be encouraged to increase the productivity and income of fish culture. Appropriate AEWs' activities and incentive policies of the local government can help to improve farmers' cooperation and their knowledge on farm management and fish culture. In addition, both technical and economic aspects of seed supply for fish culture should be given more consideration to satisfy the demand of fish culture adopters.

Conclusions

Faced with population pressure that contributes to the decline of natural resources including wildfish, fish culture has become more important than ever in the Mekong River Delta.

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AFSSRNewsbits

AFSSRN Report Series

Below is a complete list of AFSSRN Research Report Series which are available free of charge. These are research studies completed by the Network members under Phase III and IV.

No. 3-1 *Rice-Fish Culture in the Philippines: An Output Risk Programming Analysis* by Danilo C. Israel, Ruben C. Sevilleja, Antonio V. Circa and Rogelio D. Cocio;

No. 3-2 *Economic Assessment of Shrimp (P. monodon) Hatchery Industry in Panay Island* by Renato F. Agbayani, Giselle PB Samonte, Fe E. Parado, Reuel T. Tumaliwan, Rolando S. Ortega and Larni A. Espada;

No. 3-3 *Enforcement and Compliance with Regulations in the Malaysian Fishery* by K. Kuperan Viswanathan;

No. 3-4 *Estimating Input Demand and Output Supply Elasticities in Gillnet and Seine Fishing in Guimaras Strait and Adjacent Waters* by Cecilia T. Pestaño and Rodelio F. Subade;

No. 3-5 *A Bioeconomic Model of the East Johore Prawn Fishery* by Kusairi Mohd. Noh, Tai Shzee Yew, Nik Mustapha Raja Abdullah and Ishak Hj. Omar;

No. 3-6 *Financial Profitability of Rice-Fish Farming System: A Case Study of the Concurrent Pond Refuge System, A Philippine Example* by Ruben C. Sevilleja; and

No. 4-1 *Community-Based Management of Coastal Resources* by Ida M. Siason and Rodelio F. Subade.

Workshop in Bali

An AFSSRN regional workshop entitled "Evaluating the Effectiveness of Environmental Programs and Policies" will be held on 25-29 March 1996 in Bali, Indonesia. This is a follow-up to the training workshop held in January 1995 at SEARCA-Los Baños, Philippines.

This workshop will be conducted by Dr. Richard Tobin of the USAID-sponsored Environmental and Natural Resources Policy and Training Project (EPAT). This activity will be administered by ICLARM in collaboration with Central Research Institute for Fisheries (CRIFI). Members from the various research teams of the AFSSRN are expected to participate. Funding is provided by IDRC and the Canadian High Commission.